

Title (en)
RFID conveyor system and method

Title (de)
RFID-Fördersystem und Verfahren

Title (fr)
Système et procédé de convoyeur RFID

Publication
EP 1708121 A1 20061004 (EN)

Application
EP 06251665 A 20060328

Priority
• US 66693805 P 20050329
• US 77363406 P 20060215

Abstract (en)
A conveyor system for processing items on which radio frequency identification tags are disposed includes a frame and a conveyor disposed moveably on the frame and that conveys items through a path of travel, each item having at least one respective radio frequency identification tag disposed thereon. A plurality of antennas are disposed proximate the path of travel so that the plurality of antennas radiate radio frequency signals into first areas through which the items pass and receive responses to the radio frequency signals from the respective radio frequency identification tags on the items. A first antenna is offset with respect to the path of travel from a second antenna so that the radio frequency signals from the second antenna generally do not interfere with reception of responses by the first antenna from radio frequency identification tags located within a predetermined second area along the path of travel. A radio frequency receiver receives signals from the first antenna corresponding to the responses received by the first antenna from the radio frequency identification tags and outputs first signals corresponding to the responses. A processor receives the first signals from the receiver and is programmed to associate a first signal with the first item if the processor receives the first signal from the receiver while at least a portion of the first item is within the second area.

IPC 8 full level
G06K 7/00 (2006.01)

CPC (source: EP US)
B07C 5/3412 (2013.01 - EP US); **G06K 7/0008** (2013.01 - EP US); **G06K 7/10079** (2013.01 - EP US); **G06K 7/10316** (2013.01 - EP US); **G06K 7/10336** (2013.01 - EP US); **G06K 7/10346** (2013.01 - EP US); **G06K 7/10356** (2013.01 - EP US); **G06K 7/10435** (2013.01 - EP US); **G06K 17/00** (2013.01 - EP US); **G06Q 10/08** (2013.01 - EP US); **H01Q 1/2208** (2013.01 - EP US); **H01Q 1/2216** (2013.01 - EP US); **H01Q 1/2241** (2013.01 - EP US); **H01Q 9/0407** (2013.01 - EP US); **H01Q 9/0428** (2013.01 - EP US); **H01Q 17/001** (2013.01 - EP US); **H01Q 21/065** (2013.01 - EP US); **H01Q 21/08** (2013.01 - EP US); **H01Q 21/28** (2013.01 - EP US); **B65G 2203/042** (2013.01 - EP US); **G06K 2207/1012** (2013.01 - EP US)

Citation (search report)
• [PX] EP 1628238 A1 20060222 - FUJITSU LTD [JP]
• [X] US 6236316 B1 20010522 - EBERHARDT NOEL H [US], et al
• [A] US 2002030587 A1 20020314 - JACKSON JEROME D [US]
• [X] PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12 5 December 2003 (2003-12-05)

Citation (examination)
• EP 0598625 A1 19940525 - SQUIBB & SONS INC [US]
• US 6028518 A 20000222 - RANKIN MARK J [US], et al

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1708119 A1 20061004; EP 1708119 B1 20091230; DE 602006007897 D1 20090903; DE 602006007898 D1 20090903; DE 602006008372 D1 20090924; DE 602006009431 D1 20091112; DE 602006011384 D1 20100211; DE 602006017135 D1 20101111; EP 1708120 A1 20061004; EP 1708120 B1 20090722; EP 1708121 A1 20061004; EP 1708122 A1 20061004; EP 1708122 B1 20100929; EP 1708123 A1 20061004; EP 1708123 B1 20090722; EP 1708124 A1 20061004; EP 1708124 B1 20090930; EP 1710729 A1 20061011; EP 1710729 B1 20090812; US 2006226989 A1 20061012; US 2006232420 A1 20061019; US 2006232421 A1 20061019; US 2006232422 A1 20061019; US 2006232423 A1 20061019; US 2006238351 A1 20061026; US 2006238352 A1 20061026; US 2006238353 A1 20061026; US 2006244607 A1 20061102; US 2006244608 A1 20061102; US 2006244609 A1 20061102; US 2006244610 A1 20061102; US 2006244611 A1 20061102; US 2006250253 A1 20061109; US 7468670 B2 20081223; US 7492259 B2 20090217; US 7501956 B2 20090310; US 7515047 B2 20090407; US 7518513 B2 20090414; US 7538675 B2 20090526; US 7545273 B2 20090609; US 7548162 B2 20090616; US 7554447 B2 20090630; US 7557713 B2 20090707; US 7576655 B2 20090818; US 7586411 B2 20090908; US 7589635 B2 20090915; US 7592915 B2 20090922

DOCDB simple family (application)
EP 06251656 A 20060328; DE 602006007897 T 20060328; DE 602006007898 T 20060328; DE 602006008372 T 20060328; DE 602006009431 T 20060328; DE 602006011384 T 20060328; DE 602006017135 T 20060328; EP 06251664 A 20060328; EP 06251665 A 20060328; EP 06251671 A 20060328; EP 06251672 A 20060328; EP 06251673 A 20060328; EP 06251684 A 20060328; US 38722006 A 20060323; US 38729306 A 20060323; US 38736506 A 20060323; US 38741306 A 20060323; US 38743706 A 20060323; US 38762906 A 20060323; US 38763006 A 20060323; US 38766706 A 20060323; US 38805406 A 20060323; US 38809906 A 20060323; US 38810106 A 20060323; US 38810206 A 20060323; US 38811706 A 20060322; US 38814506 A 20060322